

DOCKET NO.: DIBIS-0002US.P2 (Counsel Docket No. 10467)**PATENT****REMARKS**

Claims 1-28 were pending and under examination. In the Office Action mailed March 13, 2006 the Examiner makes a Restriction Requirement, restricting pending claims 1-28 into the following two groups:

Group I (Claims 1-13 and 23-28) drawn to methods of bioagent identification, particularly for tracking biowarfare situations, classified in class 435, subclass 6.

Group II (Claims 14-22) drawn to genotyping a bioagent, classified into class 435, subclass 91.1.

Applicants elect, without traverse, to prosecute the claims of Group II. In an Amendment accompanying this response, Applicants have cancelled claims 1-13 and 20-28 in order to further their business interests and the prosecution of the present application. Applicants reserve the right to prosecute the cancelled claims of Group I in one or more divisional applications.

Claim 14 has been amended to recite the selection of least one pair of oligonucleotide primers, wherein one member of the pair of primers hybridizes to a first conserved region of nucleic acid encoding ribosomal RNA and the other member of said pair of primers hybridizes to a second conserved region of nucleic acid encoding ribosomal RNA wherein said first and second conserved regions flank a variable nucleic acid region which varies among bioagents. Support for this amendment can be found, for example, on page 12, lines 5-27 and also in Figures 1 and 2 that indicate that each of the primers hybridize to conserved regions of DNA encoding ribosomal RNA.

Claim 14 has been further amended to recite the steps of amplifying nucleic acid from the bioagent with the pair of oligonucleotide primers to produce an amplification product, determining the molecular mass of the amplification product by mass spectrometry, calculating the base composition of the amplification product from the molecular mass; comparing the base composition to calculated or measured base compositions of amplification products of known bioagents produced by using the pair of oligonucleotide primers, thereby identifying the bioagent at the species level. Support for these amendments can be found, for example in Example 3 on pages 29-32.

Claim 14 has been further amended to recite the steps of identifying a sub-species characteristic of said bioagent, thereby thereby determining the genotype of said bioagent.

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Support for this amendment can be found, for example, on pages 24 and 38 and in Figure 18.

Claims 15-17 and 19 have been amended to substitute the term "genotyping information" with the term "sub-species characteristic." Support for these amendments is found, for example, on page 22, lines 1-5.

Claim 19 has been amended to recite that the toxin gene of claim 18 has been inserted by genetic engineering. This amendment is supported, for example on page 22, lines 5-7.

In the present Amendment and Response to Office Action of March 13, 2006 the Applicants have added claims 29-38. Claims 29 and 30 are dependent on currently amended claim 14. Independent claim 31 and claims dependent thereupon, recite the method of for determining the genotype of a bioagent of claim 14, and are thereby fully in accord with the Applicant's election of claim Group II for prosecution.

Support for new claim 29 can be found, for example, on page 17, lines 1-5.

Support for new claim 30 can be found, for example, on page 9, lines 12-20.

New claim 31 recites a method for determining the genotype of a bioagent by selecting at least one pair of oligonucleotide primers which are not specific for a particular bioagent genus, wherein one member of the pair of primers hybridizes to a first conserved region of nucleic acid encoding a protein involved in translation, replication, recombination and repair, transcription, nucleotide metabolism, amino acid metabolism, lipid metabolism, uptake or secretion and the other member of the pair of primers hybridizes to a second conserved region of nucleic acid encoding a protein involved in translation, replication, recombination and repair, transcription, nucleotide metabolism, amino acid metabolism, lipid metabolism, uptake, secretion, antibiotic resistance, virulence, or pathogenicity wherein the first and second conserved regions flank a variable nucleic acid region which varies among bioagents. Support for these elements can be found, for example, on page 12, lines 5-27 which describe broad-range priming, and page 9, lines 29-33 as well as page 22, lines 2-4 which describes classes of genes encoding proteins that participate in, for example antibiotic resistance, virulence and pathogenicity. Claim 31 further recites the steps of amplifying nucleic acid from the bioagent with the pair of oligonucleotide primers to produce an amplification product, determining the molecular mass of the amplification product by mass spectrometry, calculating the base composition of the amplification product from the molecular mass; and comparing the base composition to calculated or measured base compositions of amplification products of known bioagents produced by using the pair of oligonucleotide primers, obtaining a second amplification product from nucleic acid of said

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bioagent wherein said second amplification product comprises a sub-species characteristic; and determining the molecular mass of said second amplification product by mass spectrometry, thereby determining the genotype of said bioagent. Support for these elements can be found, for example in Example 3 on pages 27-30.

Support for new claims 32-36 is found, for example, on page 22, lines 1-7.

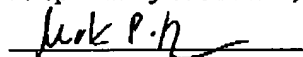
Support for new claim 37 can be found for example on page 17, lines 1-5.

Support for new claim 38 can be found, for example on page 9, lines 12-20.

IV. Conclusions

In view of the foregoing, Applicants submit that the claims of the instant application are in condition for allowance. The Examiner is invited to contact Applicants' undersigned representative if there should be any questions with regard to the claimed invention.

Respectfully submitted,



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